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POST-EDITING MACHINE TRANSLATION EXPERIMENTS

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Over the past few years, we can observe fundamental changes in the field of machine translation, they consist not only in changing the algorithms used in such programs, but also in changing the role of machine translation. Even ten years ago, computer-aided translation programs were used more as a reference tool for translators, their work could not even closely compare with human translations, but now we are observing a different tendency – due to the development of technologies in the field of artificial intelligence, the result of machine translation programs is becoming more and more close to real human language.

Previously the work of most of the programs was based on the use of previously translated texts, databases created by translators, pairs of translated sentences, then at this stage of machine translation is the use of artificial multilayer neural networks, the operation of which is based on the work of artificial neurons, which interact with each other according to different algorithms to form layers, the activity of which provides the possibility of learning neural networks. Their use allows to make the translation more accurate, although it does not exclude a large number of errors, including the translation of rare concepts, words that are not used in the literal sense, idioms, phrases, puns, and so on. Especially many inconsistencies arise when it comes to translation between languages belonging to different types, for example, from synthetic to analytical language and vice versa. And these changes are reflected directly in the everyday work of translators and in what the market and employers demand from specialists in this field. Especially in recent years, the role of post-editing translation has increased. In order to understand which machine translation tools are optimal for increasing the productivity and effectiveness of translators, several studies were carried out. Among them were Plitt and Masselot [4], Volk et al., [3], Guerberof Arenas [1].

In these experiments, translators had to translate tests without the help of software, and then using specially developed programs. The time spent by the specialist on the task was compared. As a result of such studies, it was concluded that, in general, the efficiency of employees increases with the use of digital tools, and the time to complete the translation is significantly reduced [2].

The results of the studies described were probably not very accurate. This is due to the fact that the work of translators was not studied in a realistic environment, but in an artificially created experiment, where specialists used specially developed programs, and not those that they usually use in their work.

It should be noted that the use of a domain-specific translation system by translators, in addition to the usual auxiliary programs for translation, significantly positively affects the productivity of employees.

In order to more accurately assess the change in the efficiency of translators' work using machine translation programs, an experiment was carried out, which combined the key elements of the approaches: precise time and activity measurements and preservation of a realistic translation environment.

Translators were allowed to use Across Personal Edition1, a small domain-specific terminology database, and online or offline dictionaries of their choice. The translation memory was also involved, which automatically inserted terms that matched in the translation and displayed those that did not completely match.

In the post-edit condition, machine translation was included in addition to the previously described setting, while allowing access to the same translation tools. Before editing, draft translations were prepared by a specialized statistical machine translation system.

The texts of the translations made by the participants of the experiment (newcomers to the field) were subsequently compared with the translations of experienced specialists who were versed in this domain.

In this experiment length-normalized translation times varied considerably by document and the factors which influenced the average time needed for translating a word were taken into consideration.

In a result the more prose-like texts consisting primarily of full sentences were translated much faster than the information-denser texts consisting primarily of bullet points. The post-editing translation proved to be faster (post-editing reduces time by 17.4%.), than a Translation-Memory Only one (three out of four texts were translated faster in Post-Edit;)

Such an increase in translation speed is justified only if the quality of the translated text does not decrease. Thus, in order to check how the Post-Edit translation complies with the manual translation, the examiner was asked to evaluate the quality of both translations. The experts were not informed about the origins of the translations or the translation conditions.

The evaluation included five ordinal scales for (i) target language expression, (ii) target language grammar, (iii) target language syntax, (iv) semantic accuracy, and (v) translation strategy.

As a result, compared with the translations produced in Post-Edit, the reference translations received lower average ratings. Participants could not distinguish their post-edited translations from the professionally produced translations, while they considered the professional translations better than those produced in the TM-Only condition. The evaluation of translation quality confirms that post-edited translations are at least equivalent to conventionally produced translations

Ultimately, the organizers of the study found that time savings lie within a range of 15–20% when using post-edit translation versus manual translation. This result is comparatively lower than that previously found by other researchers [4]. The organizers explain this by the fact that relatively inexperienced translators took part in their experiment, while other studies included the work of experienced specialists.

Moreover, the availability of a domain-specific translation memory and a bilingual terminology database reduced the difference between TM-Only and Post-Edit, i.e., it increased translation throughput, especially in the former condition, where no machine translations were available.

Thus, during the experiment, postediting results in significantly faster translation with consistent quality even when compared to computer-aided translation were demonstrated (as opposed to completely unaided translation). It has been shown that translation using software does not differ in quality from manual translation. From this it comes out that the introduction of such techniques into the work of translators in real conditions is possible and can bring significant benefits.

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ВАРІАТИВНІСТЬ ПЕРЕКЛАДУ МЕДИЧНИХ ТЕРМІНІВ У ПОВІСТІ Д. К. ДЖЕРОМА «THREE MEN IN A BOAT (TO SAY NOTHING OF THE DOG)»

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Використання термінів в художній літературі пов'язане з конкретною метою вислову, при цьому терміни виконують неоднакові стилістичні функції у різних за тематикою та жанровістю творах, сприяючи реалістичності зображуваних подій, характеристиці персонажів та ін. [1, с. 374]. Медичні терміни в тексті художнього твору можуть ускладнити завдання перекладача з пошуку терміна-еквівалента у мові перекладу, оскільки необхідно зробити його зрозумілим для читача та одночасно зберегти та відтворити задум автора, за виразом А. В. Федорова «висловити вірно і повно засобами однієї мови те, що вже виражено раніше засобами іншої мови» [2, с. 10].

Було проаналізовано переклади повісті Джерома К. Джерома «Three Men in a Boat (To Say Nothing of the Dog)», виконані В. Прокопчуком (1956), Ю. Лісняком (1974), Ю. Якушиком (2011), О. Негребецьким (2014) українською мовою та переклади М. А. Енгельгардта (1901), Є. Кудашевої (1912), М. Сал'є (1957), Е. Лінецької та М. Донськоого (1958), Г. Сєвєра (1996) російською мовою.

На початку твору автор іронізує над головним героєм Джеєм, який знаходить у себе всі хвороби, які містяться у медичному довіднику: *« I sat for awhile, frozen with horror; and then, in the listlessness of despair, I again turned over the pages. I came to* ***typhoid fever*** *– read the symptoms –*